

Abstract Submitted to the  
International Conference on Strongly Correlated Electron Systems  
University of Michigan, Ann Arbor  
August 6-10, 2001

**Investigation of the Ground State Properties  
of Mixed Valence Compound  $\text{SmB}_6$**

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We have studied the ground state properties of the mixed valence narrow-gap semiconductor  $\text{SmB}_6$  by means of electrical conductivity and specific heat measurements down to 0.1 K. The conductivity results show that the residual electrical conductivity of  $\text{SmB}_6$ , which is observed below about 3 K, is non-activated and the corresponding state, which is formed within the impurity dependent in-gap states, has a metallic-like nature. Additional heat capacity measurements of two samples with a different content of impurities reveal, moreover, an enhancement of the specific heat of  $\text{SmB}_6$  in this temperature range. The observed behaviour can be attributed to a coherent state formation at the Fermi level of this compound at very low temperatures.